

## Specifications for High Speed Scientific Grade Camera

### Camera Requirements:

- Frame rate of at least 1547 fps at a full resolution of 1920 x 1440; Higher frame rates shall be possible at reduced resolution. Software selectable region of interest down to at least 240x16 pixels (95,011 fps).
- 11um x 11um pixels or smaller
- 12-bit digitization or larger
- Dynamic Range: >64 dB
- Variable exposure times from 1.5μs to 40msec selectable in software.
- Interframing time (PIV Mode) of <5 μs.
- On board memory of 9GB with 18GB or 36 GB optional upgrades.
- Internal / External Trigger: +/- 5V TTL
- F-mount adapter
- 18GB camRAM - on-board camera memory
- GigE and USB2.0 interfaces
- Readout noise of less than 22 electrons @ 40.0MHz. (19e- typical in CDI Mode)
- Quantum efficiency of 50% or more at 600 nm
- Linearity: >99.5% (diff.); >99.8% (integr.)
- Offset variation <= +/-5 counts
- Ability to synchronize multiple cameras with a jitter of < 30ns.
- Optional rechargeable battery providing up to 6 hours of image preservation.
- Image transfer via GigE Vision and USB 2.0 interface. Both must be integrated such that the user can select which one to use. Optional Camera Link connectivity available.
- To include camera software with ability to write to disk, define all camera, setting of multiple trigger options, adjustment of image display properties, and ability to save in many file formats including JPEG 2000, AVI and TIFF16.
- To Include 32-bit and/or 64-bit Software Developers Kit (SDK) for XP, Win7, Win8 allowing the user to customize the acquisition or integrate with existing software.
- To include at least Two Years Full Manufacturer's Warranty.